(12) INTERNATIONAL

LICATION PUBLISHED UNDER THE PATENT COPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 6 May 2004 (06.05.2004)

**PCT** 

## (10) International Publication Number WO 2004/038521 A1

(51) International Patent Classification<sup>7</sup>:

G05B 19/045

(21) International Application Number:

PCT/EP2002/011903

(22) International Filing Date: 24 October 2002 (24.10.2002)

(25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): TELE-COM ITALIA S.P.A. [IT/IT]; Piazza degli Affari, 2, I-20123 Milano (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BRAGAGNINI, Andrea [IT/IT]; Telecom Italia S.p.A, Via Reiss Romoli, 274, I-10148 Torino (IT). TUROLLA, Maura [IT/IT]; Telecom Italia S.p.A., Via Reiss Romoli, 274, I-10148 Torino (IT).
- (74) Agents: GIANNESI, Pier, Giovanni et al.; Pirelli S.p.A., Viale Sarca, 222, I-20126 Milan (IT).

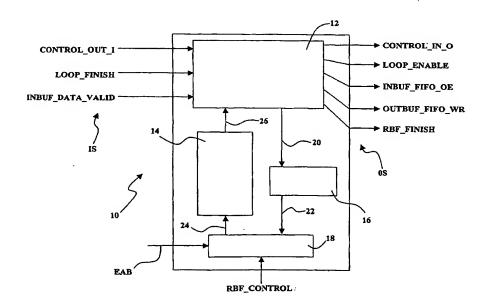
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A RECONFIGURABLE STATE MACHINE ARCHITECTURE AND RELATED METHOD OF EXECUTION



(57) Abstract: An architecture for a state machine (10) with a number of states of the machine, comprises a memory (14) having a set of addresses. The memory (14) is arranged to store at each of said addresses in the set the complete description of a respective one of said number of states of the machine (10).



tional Application No PCT/EP 02/11903

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G05B19/045

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7-605B-606F-611C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

### EPO-Internal

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	US 4 370 729 A (BOSCH EUGEN I) 25 January 1983 (1983-01-25) column 2, line 62 - line 68 figures 1-3	1-11, 17-32, 38-42
Α	US 4 755 967 A (GABRIS JOSEPH ET AL) 5 July 1988 (1988-07-05) figures 2,4	9-11,21, 30-32,42
Y	US 5 125 098 A (BURROWS JAMES L) 23 June 1992 (1992-06-23) column 4, line 64 - line 67 column 5, line 1 - line 8	12,33
Α	/	13-16, 34-37

<del></del>				
Further documents are listed in the continuation of box C.	Y Patent family members are listed in annex.			
Special categories of cited documents:      A' document defining the general state of the art which is not considered to be of particular relevance      E' earlier document but published on or after the international filing date      L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another cliation or other special reason (as specified)      O' document referring to an oral disclosure, use, exhibition or other means      P' document published prior to the international filing date but later than the priority date claimed	"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "8" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
9 September 2003	26/09/2003			
Name and maliing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Bosch Vivancos, P			



International Application No PCT/EP 02/11903

C (Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/EP 02/	11903
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
Υ	HENNESSY J L ET AL: "Computer Organization and Design. The hardware/software interface", MORGAN KAUFMAN, SAN FRANCISCO, CALIFORNIA XP002253365 page 509; figure 7.27		12,33
x	US 4 407 015 A (ZIOBRO DANIEL P) 27 September 1983 (1983-09-27) column 3, line 18 - line 26; figure 2		1-8,18, 22-29,39
<b>A</b>	HENNESSY J L ET AL: "Computer Organization and Design. The hardware/software interface", COMPUTER ORGANIZATION AND DESIGN: THE HARDWARE/SOFTWARE INTERFACE, XX, XX, PAGE(S) C3-C26 XP002247698 figure C.15		17,19, 20,38, 40,41
		,	
,			



International Application No PCT/EP 02/11903

 					101/21 02/11303	
Patent document cited in search report		Publication date		Patent family member(s)	Publication date	
US 4370729	Α	25-01-1983	NONE			
US 4755967	A	05-07-1988	EP JP	0238125 A2 62226306 A	23-09-1987 05-10-1987	
US 5125098	Α	23-06-1992	NONE	— — — — — — — — — — — — — — — — — — —		
US 4407015	Α	27-09-1983	NONE	<del></del>		